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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,459	03/27/2004	Julian James Orbach	403047-A-01-US (Orbach)	9320

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JOHN C. MORAN, ATTORNEY, P.C.
4120 EAST 115 PLACE
THORNTON, CO 80233-2623

EXAMINER	
NGUYEN, KHAI N	

ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/810,459	ORBACH, JULIAN JAMES	
	Examiner	Art Unit	
	KHAI N. NGUYEN	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Deember 10, 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 9-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 9-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on December 10, 2007 has been entered. Claims **18**-22 have been emended. Claims 6-8, and 23-37 have been canceled. No claims have been added. Claims 1-5, and 9-22 are still pending in this application, with claims 1, 9, 13, and **18** being independent.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5, and 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Myllyla (U.S. Patent Number 6,542,436).

Regarding claim 1, Myllyla teaches a method for detecting presence of a user at a telecommunication terminal (Figs. 1-3), comprising the steps of:

testing acoustic paths communicating audio information from and back to the telecommunication terminal (Fig. 1, 1 EMITTING, 2 RECEIVING, A Path, B Path, Fig. 2, Mobile Telephone/Cellular Telephone/Personal Communicator, col. 2 lines 66-67, and col. 3 lines 1-4, i.e., generates a measurement signal from and back to the detection system via acoustic paths); and

determining the presence of the user based on changes in the acoustic paths (Figs. 1-2, col. 3 lines 4-8, i.e., the altered measurement signal is compared to a predetermined threshold value for determining the presence the user).

Regarding claim 2, Myllyla teaches a method wherein the step of testing comprises the steps of forming a model of the acoustic paths (Figs. 2-3);

detecting modifications in the acoustic paths to update the model of the acoustic paths (Fig. 3, col. 4 lines 32-38); and

the step of determining comprises the step of using the detected modifications to determine changes in the acoustic paths (Fig. 3, col. 4 lines 39-40, i.e., acoustic paths altered by the user's head).

Regarding claim 3, Myllyla teaches a method wherein the step of detecting comprises the steps of applying audio information transmitted from the telecommunication terminal to the model of the acoustic paths (Figs. 2-3);

receiving the transmitted audio information back by the telecommunication terminal via the acoustic paths (Fig. 3, col. 4 lines 41-47);

determining a difference between an output of the model of acoustic paths from the received audio information (Fig. 3, col. 4 lines 48-53); and

calculating a correction to the model of the acoustic paths using the difference and transmitted audio information (Figs. 1-3, col. 4 lines 54-58).

Regarding claims 4 and 11, Myllyla teaches a method and an apparatus wherein the audio information is at one of within human hearing, above human hearing and below human hearing (Figs. 1-5, col. 7 lines 26-29, i.e., acoustic signals range from infrasound to ultrasound).

Regarding claim 5, Myllyla teaches a method wherein the step of determining the presence comprises the steps of developing the model of the acoustic paths with the user presence and not presence at the telecommunication terminal (Figs. 1-3, col. 4 lines 32-40); and

calculating a threshold of changes in the model of the acoustic paths that represents the presence or non-presence of the user at the telecommunication terminal (Figs. 1-3, col. 4 lines 41-58).

Regarding claim 9, Myllyla teaches an apparatus for detecting presence of a user at a telecommunication terminal (Figs. 1-3), comprising:

a transmitter for transmitting audio information (Fig. 1, 1, A, Fig. 2, 1, A, col. 3 lines 58-59);

a receiver for receiving the transmitted audio information via acoustic paths (Fig. 1, 2, B, Fig. 2, 2, B, col. 3 lines 58-61) ;

a model of the acoustic paths for using the audio information before transmission and for producing an audio output (Figs. 1-2, Fig. 3, 1 MEASUREMENT SIGNAL GENERATOR, col. 3 lines 58-59);

a comparator for determining a difference between the audio output and received audio information (Figs. 1-2, Fig. 3, 6 IMPULSE RESPONSE, col. 3 lines 61-65);

a modifier for iteratively generating modifications for the model of the acoustic paths in responsive to the difference and audio information before transmission (Fig. 1, 3 DIGITAL SIGNAL PROCESSING UNIT (DSP), Figs. 2-3, col. 3 61-67, and col. 4 lines 1-2); and

a controller (Fig. 1, 3 DSP) responsive to the modifications for detecting the presence or non-presence of the user at the telecommunication terminal (Fig. 1, 3 DSP, Figs. 2-3, col. 4 lines 2-4).

Regarding claim 10, Myllyla teaches an apparatus wherein the controller further configured for determining modifications when the user is presence and when the user is not presence (Fig. 1, 3 DSP, Figs. 2-3, col. 3 61-67, and col. 4 lines 1-2); and

the controller calculating a threshold from the determined modifications indicating the presence or non-presence of the user (Fig. 1, 3 DSP, Figs. 2-3, col. 4 lines 2-4).

Regarding claim 12, Myllyla teach an apparatus wherein the type of the audio information is controlled by the controller (Fig. 1, 3 DSP, col. 3 line 67, and col. 4 lines 1-2, i.e., measurement signal “audio information” is generated by DSP).

Claim Rejections - 35 USC § 103

4. Claims 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myllyla in view of Dent et al. (U.S. Patent 5,680,450 hereinafter "Dent").

Regarding claims 13 and 18, Myllyla teaches an apparatus and a method for detecting presence of a user at a telecommunication terminal (Figs. 1-3), comprising:

an echo canceller/echo detector for canceling echoes caused by acoustic paths to audio information from and back to the echo canceller/echo detector (Fig. 3, 3 ECHO PATH, col. 4 lines 32-40, i.e., generates a measurement signal from and back to the detection system via acoustic paths/echo paths); and

a controller (Fig. 1, 3 DIGITAL SIGNAL PROCESSING UNIT (DSP)) responsive to changes in the echo canceller for determining the presence and non-presence of the user at the telecommunication terminal (Figs. 1-3, col. 3 lines 4-8, and col. 4 lines 54-59, i.e., the difference is compared to a predetermined threshold value for determining the presence or non-presence of a user).

However, Myllyla does not specifically disclose the echo canceller. Although Myllyla teaches the Digital Signal Processor (DSP) detects a generated measurement signal via the echo path (Myllyla - Fig. 1, 3 DSP, Fig. 3, 3 ECHO PATH, col. 3 lines 57-67, and col. 4 lines 1-4). In addition, Myllyla teaches this telecommunication terminal comprises a mobile telephone/cellular telephone (Myllyla – col. 3 lines 6-8) which is inheritely has an echo canceller/echo detector by design.

In the same field of endeavor, Dent teaches an echo canceller/echo detector for canceling echoes caused by acoustic paths to audio information from and back to the echo canceller, and this echo canceller can be implemented by the DSP (Dent – Figs. 1-4, col. 3 lines 49-67, and col. 4 lines 45-47, lines 52-54).

It would be obvious to one of ordinary skill in the art at the time of the invention was made to apply a known technique to a known device (i.e., implement echo canceller with DSP) ready for improvement to yield predictable results (see KSR - MPEP 2143). Therefore, it would be obvious to incorporate the echo canceller implemented with the DSP, as taught by Dent, into Myllyla's method and system in order to enhance the detection of a user presence.

Regarding claims 14 and 19, Myllyla teaches a method and an apparatus wherein the audio information is at one of within human hearing, above human hearing and below human hearing (Figs. 1-5, col. 7 lines 26-29, i.e., acoustic signals range from infrasound to ultrasound).

Regarding claims 15 and 20, Myllyla teach an apparatus and a method wherein the type of the audio information is controlled by the controller (Fig. 1, 3 DSP, col. 3 line 67, and col. 4 lines 1-2, i.e., measurement signal "audio information" is generated by DSP).

Regarding claims 16 and 21, Myllyla teaches an apparatus and a method wherein the echo canceller/echo detector comprises a model of the acoustic paths (Figs. 1-3);

a modifier for generating modifications to the model based on changes to the acoustic paths ((Fig. 1, 3 DIGITAL SIGNAL PROCESSING UNIT (DSP), Figs. 2-3, col. 3 61-67, and col. 4 lines 1-2); and

the controller (Fig. 1, 3 DSP) responsive to the generated modifications for determining the presence or non-presence of the user at the telecommunication terminal (Fig. 1, 3 DSP, Figs. 2-3, col. 4 lines 2-4).

Myllyla does not specifically disclose the echo canceller/echo detector. In the same field of endeavor, Dent teaches an echo canceller/echo detector comprises a model of the acoustic paths (Dent - Figs. 1-4, col. 3 lines 49-67).

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to incorporate the echo canceller/echo detector with a model of the acoustic paths, as taught by Dent, into Myllyla's method and system in order to enhance the detection of a user presence.

Regarding claims 17 and 22, Myllyla teaches an apparatus and a method wherein the modifier responsive to a difference in an output of the model of the acoustic paths to audio information before transmission from the echo canceller/echo detector and received audio information via the acoustic paths for generating the modification

based on the difference and the audio information before transmission (Figs. 1-3, col. 3 lines 1-6).

Myllyla does not specifically disclose the echo canceller/echo detector. In the same field of endeavor, Dent teaches an echo canceller/echo detector comprises a model of the acoustic paths (Dent - Figs. 1-4, col. 3 lines 49-67).

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to incorporate the echo canceller/echo detector with a model of the acoustic paths, as taught by Dent, into Myllyla's method and system in order to enhance the detection of a user presence.

Response to Arguments

5. Applicant's arguments with respect to claims 1-5, and 9-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Biegelsen (U.S. PUB 2005/0207589 A1) teaches a method and system for detecting objects by using a hypersonic beam.

Ross et al. (U.S. PAT 5,519,669) teach a method and system for using acoustic surveillance of objects and human traffic.

Asbury et al. (U.S. PAT 4,035,760) teach a method and system for managing detecting the movement of an object.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI N. NGUYEN whose telephone number is (571)270-3141. The examiner can normally be reached on Monday - Thursday 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. N. N./
Examiner, Art Unit 2614

03/11/2008